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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,353	08/30/2001	Wen-Shan Wang	42390P10848	9900

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EXAMINER

NGUYEN, JOHN B

ART UNIT PAPER NUMBER

2819

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/944,353

Applicant(s)

WANG ET AL.

Examiner

John B Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 and 34-41 is/are allowed.
- 6) ☒ Claim(s) 15, 19-27, 31 is/are rejected.
- 7) ☒ Claim(s) 16-18, 28-30, 32 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## DETAILED ACTION

### Information Disclosure Statement

1. Information Disclosure Statement (IDS) form PTO-1449 filed on 12/10/01 has been considered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 15, 19-27, 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Acharya et al. (U.S. Patent No. 6,563,439 B1 and Application No. 09/704,380).

Regarding to claim 15, at least one base code register (fig. 6) and at least one base index register (fig. 7), wherein the registers are configured to read values from data structure by applying the contents of the register to an input signal to produce an index (figs. 6, 7) as claim 15 discloses.

Regarding to claim 19, a code words being arranged in sub groupings comprising at least one of code word length (Fig. 7, Length (number of bits)); base code (fig.7, Start\_Code); reference code (Start\_Code); and base index (fig.7, Base\_Index) as claim 19 discloses.

Regarding to claim 20, code words are encoded with a Huffman code (Fig. 4) as claim 20 discloses.

Regarding to claim 21, the data structure comprises the reference code and the base index (fig.7) as claim 21 discloses.

Regarding to claim 22, the data structure is implemented in software (column 6, lines 5-10) as claim 22 discloses.

Regarding to claim 23, the data structure comprises the base code and the base index (fig. 7) as claim 23 discloses.

Regarding to claim 24, the data structure is implemented in hardware (column 6, lines 5-10) as claim 24 discloses.

Regarding to claim 25, the Sub-groupings are organized sequentially to code word length (column 3, lines 60++) as claim 25 discloses.

Regarding to claim 27, the base code comprises the first code word of a lexicographically consecutive set of code words of the same length (column 5, line 29++) as claim 27 discloses.

Regarding to claim 31, the data structure for decoding code words comprising sorting the code words by code length; ordering the code words of the same lengths and maintaining the code of the initial code word of a set of code words of a particular length and the total number of code words of the same length (claim 13 of Application 09/704,380) as claim 31 discloses.

***Allowable Subject Matter***

3. Claims 1-14, 34-41 are allowed.

4. The following is an examiner's statement of reasons for allowance:

The prior art fails to teach decoding a series of encoded binary digital signals using a data structure, the data structure having multiple base indices and multiple base codes

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comprising a set of N encoded binary digital signals is selected for each base code in an associated data structure; N being a value comprising the same number of bits as the number of bits comprising an extreme length code word in the data structure; and comparing one or more sets of N encoded binary digital signals with the base codes at substantially the same time (claims 1, 9, 34, 38). Therefore, claims 1-14, 34-41 are allowed.

5. Claims 16-18, 28-30, 32, 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

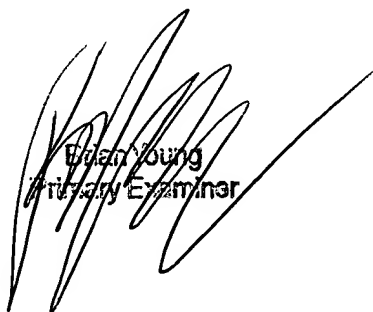
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See enclosed Form PTO-892).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B Nguyen whose telephone number is (703) 308-6039. The examiner can normally be reached on 8AM-4:30 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on (703) 305-3493. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

John B. Nguyen  
September 29, 2003

  
Brian Young  
Primary Examiner